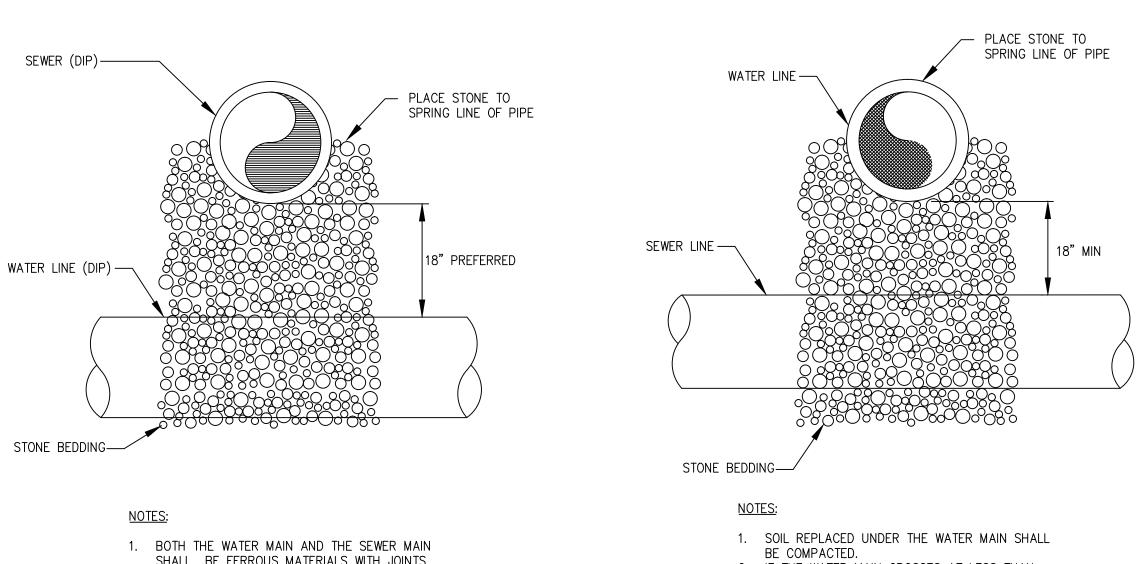


DITCH AND/OR STORM DRAIN CROSSING OFFSETS BETWEEN WATER/SEWER PRESSURE MAIN AND STORM DRAIN DETAIL WS-1



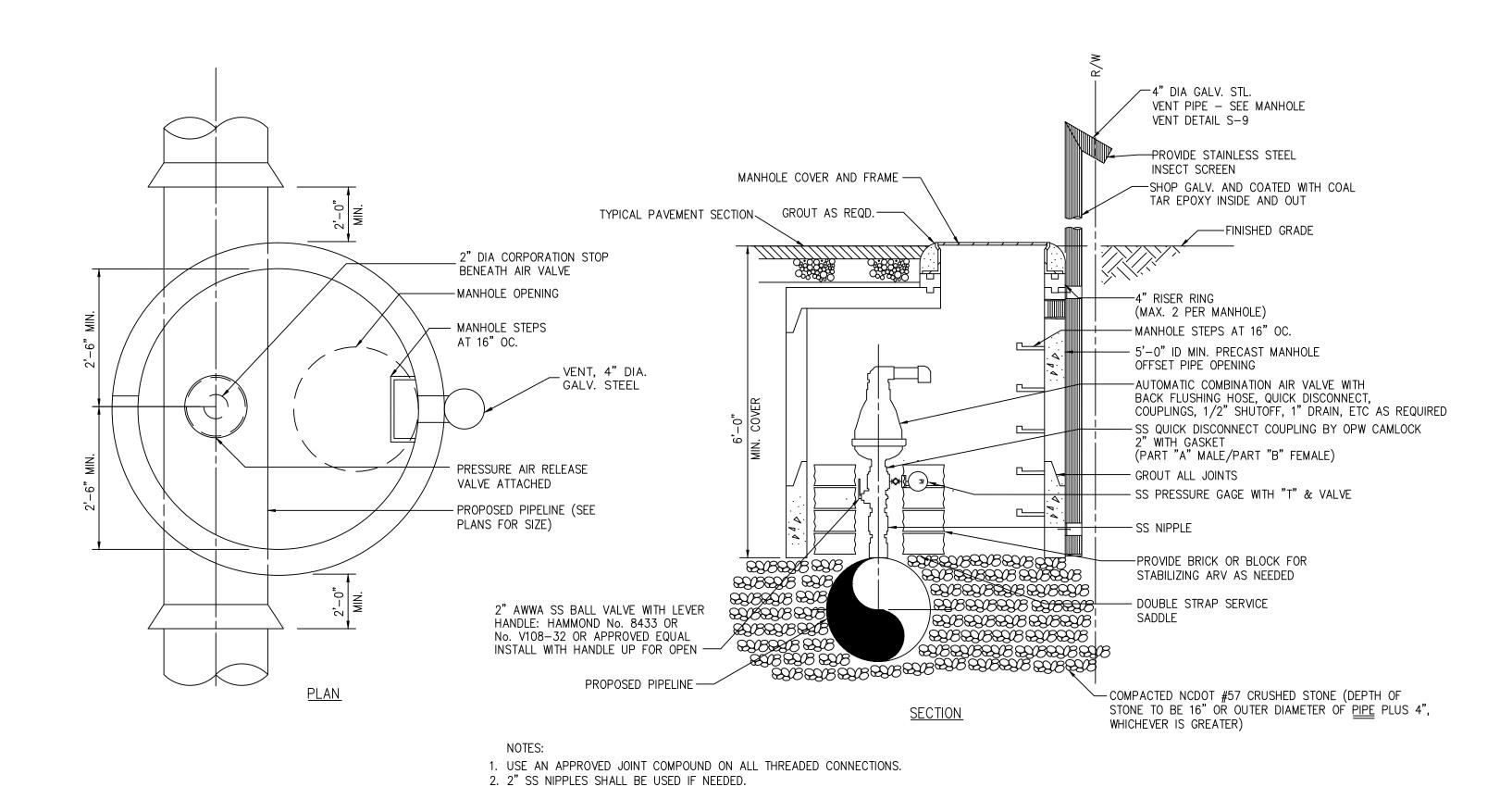
- SHALL BE FERROUS MATERIALS WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.
- 2. ALTERNATIVELY, PIPES MAY BE SLEEVED WITH FERROUS MATERIALS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING AS APPROVED BY BRUNSWICK COUNTY ENGINEERING.

SEWER CROSSING ABOVE WATER LINE

2. IF THE WATER MAIN CROSSES AT LESS THAN 18" ABOVE THE SEWER MAIN BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE FERROUS MATERIALS WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, OR THEY MAY HAVE FERROUS SLEEVES PUT AROUND THEM AS APPROVED BY BRUNSWICK COUNTY ENGINEERING.

SEWER CROSSING BELOW WATER LINE

SEWER OFFSETS ABOVE AND BELOW WATER MAINS



3. CONTRACTOR SHALL ADJUST PIPELINE PROFILE DOWNWARD IN APPROACH TO ARV IN ORDER TO ATTAIN ADEQUATE

DEPTH FOR ARV ASSEMBLY. TRANSITION LENGTH SHALL BE SUFFICIENT TO ENSURE THAT ARV IS LOCATED AT HIGH POINT.

STANDARD MANHOLE AND AIR RELEASE VALVE

NON-NCDOT R/W

DETAIL WS-2 ∕-4" DIA GALV. STL. VENT PIPE - SEE MANHOLE VENT DETAIL S-9 -PROVIDE STAINLESS STEEL REPLACE MANHOLE WITH INSECT SCREEN QUAZITE BOX FOR — —SHOP GALV. AND COATED WITH COAL TAR EPOXY INSIDE AND OUT NCDOT R/W APPLICATIONS -FINISHED GRADE -4" RISER RING (MAX. 2 PER MANHOLE) -MANHOLE STEPS AT 16" OC. - 5'-0" ID MIN. PRECAST MANHOLE OFFSET PIPE OPENING -AUTOMATIC COMBINATION AIR VALVE WITH BACK FLUSHING HOSE, QUICK DISCONNECT, COUPLINGS, 1/2" SHUTOFF, 1" DRAIN, ETC AS REQUIRED -SS QUICK DISCONNECT COUPLING BY OPW CAMLOCK " WITH GASKET (PART "A" MALE/PART "B" FEMALE) - GROUT ALL JOINTS - SS PRESSURE GAGE WITH "T" & VALVE ANGLED FOR VIEWING FROM TOP 2" DRAIN LINE SLOPED TO DITCH -PROVIDE BRICK OR BLOCK FOR STABILIZING ARV AS NEEDED 2" AWWA SS BALL VALVE WITH LEVER HANDLE: HAMMOND No. 8433 OR No. V108-32 OR APPROVED EQUAL PLACE STONE A MIN INSTALL WITH HANDLE UP FOR OPEN OF 3" ABOVE BEND — COMPACTED NCDOT #57 CRUSHED STONE (DEPTH OF STONE TO BE 16" OR OUTER DIAMETER OF PIPE PLUS 4", WHICHEVER IS GREATER) STONE BEDDING 3' ALONG PROPOSED CORPORATION STOP PIPELINE ---1. USE AN APPROVED JOINT COMPOUND ON ALL THREADED CONNECTIONS. 2. 2" SS NIPPLES SHALL BE USED IF NEEDED. 3. CONTRACTOR SHALL ADJUST PIPELINE PROFILE DOWNWARD IN APPROACH TO ARV IN ORDER TO ATTAIN ADEQUATE DEPTH FOR ARV ASSEMBLY. TRANSITION LENGTH SHALL BE SUFFICIENT TO ENSURE THAT ARV IS LOCATED AT HIGH POINT.

OFFSET AIR RELEASE AND VALVE MANHOLE DETAIL

NCDOT R/W INSTALLATION
DETAIL WS-3

Revisions

1.1 - DATED 4/30/2013 Modified WS-1, 2, AND 3

Date: <u>06-05-12</u> Scale: NTS Drawn By: JDM Checked By: WLP

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